Product Datasheet

Technical Data

Formula	$C_{21}H_{22}N_4O_2$					
Molecular Weight	362.42	**CAS No.**	331001-62-8			
Solubility (25°C)*	In vitro	DMSO	72 mg/mL (198.66 mM)			
		Ethanol	7 mg/mL (19.31 mM)			
		Water	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.
		Injection	Clear solution	5%DMSO [1]→ 40%PEG300 [2]→ 5%Tween80 [3]→ 50%ddH2O Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	3.6mg/ml (9.93mM)	Taking the 1 mL working solution as an example, add 50 μL of 72 mg/ml clarified DMSO stock solution to 400 μL of PEG300, mix evenly to clarify it; add 50 μL of Tween80 to the above system, mix evenly to clarify; then continue to add 500 μL of ddH2O to adjust the volume to 1 mL. The mixed solution should be used immediately for optimal results.
			Clear solution	5% DMSO [1]→ 95% Corn oil Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	0.51mg/ml (1.41mM)	Taking the 1 mL working solution as an example, add 50 μL of 10.2 mg/ml clear DMSO stock solution to 950 μL of corn oil and mix evenly. The mixed solution should be used immediately for optimal results.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.7592 mL	13.7961 mL	27.5923 mL
5 mM	0.5518 mL	2.7592 mL	5.5185 mL
10 mM	0.2759 mL	1.3796 mL	2.7592 mL
50 mM	0.0552 mL	0.2759 mL	0.5518 mL

Biological Activity

Description	IQ-1 enables Wnt/β-catenin-driven expansion of mouse ESCs and prevents spontaneous differentiation, Maintains embryonic stem cell (ESC) pluripotency in Wnt3a-treated cells and prevents PP2A/Nkd interaction.
Targets	β-catenin/p300 [1]
In vivo	IQ1 decreases the size of the lung and dramatically decreased the number of branching tips. Despite the branching inhibition at the distal tips, IQ1 causes an elongation of the proximal airway compared to the control lung at E14.5. This elongation of the proximal airways suggests that the impact of IQ1 is not due simply to growth inhibition. IQ1 also inhibits branching with 3 day treatment initiating at E9.9; IQ1 causes airway dilation and decreased the density of mesenchymal cells. IQ1 also affects cardiac and vascular system development. IQ1 decreases the expression of distal genes and increased the expression of proximal genes in the lung explants consistent with the hypothesis that inhibition of the β-catenin/p300 interaction proximalizes lung epithelium[2].

Protocol (from reference)

Animal Study:[2]

- **Animal Models**
  TOPGAL mice(timed pregnant mice)
- **Dosages**
  72 or 144 mg/kg/day
- **Administration**
  oral administration

References

https://pubmed.ncbi.nlm.nih.gov/24069374/ https://pubmed.ncbi.nlm.nih.gov/25505699/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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